

**CALIFORNIA AIR RESOURCES BOARD**

**FINAL REGULATION ORDER**

**§ 93115 - AIRBORNE TOXIC CONTROL MEASURE FOR  
STATIONARY COMPRESSION IGNITION ENGINES**

APPROVED BY THE OFFICE OF ADMINISTRATIVE LAW ON 11/08/04  
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## **FINAL REGULATION ORDER**

### **AIRBORNE TOXIC CONTROL MEASURE FOR STATIONARY COMPRESSION IGNITION ENGINES**

Adopt new section 93115, title 17, California Code of Regulations, to read as follows: (Note: The entire text of section 93115 set forth below is new language proposed to be added to the California Code of Regulations.)

#### **Section 93115. Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines.**

##### **(a) Purpose**

The purpose of this airborne toxic control measure (ATCM) is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines.

##### **(b) Applicability**

- (1) Except as provided in subsection (c), this section applies to any person who either sells a stationary CI engine, offers a stationary CI engine for sale, leases a stationary CI engine, or purchases a stationary CI engine for use in California.
- (2) Except as provided in subsection (c), this section applies to any person who owns or operates a stationary CI engine in California with a rated brake horsepower greater than 50 (>50 bhp).
- (3) No later than 120 days after the approval of this section by the Office of Administrative Law, each air pollution control and air quality management district (district) shall:
  - (A) implement and enforce the requirements of this section; or
  - (B) propose its own ATCM to reduce diesel PM from stationary diesel-fueled CI engines as provided in Health and Safety Code section 39666(d).

##### **(c) Exemptions**

- (1) The requirements of this section do not apply to portable CI engines or CI engines used to provide the motive power for on-road and off-road vehicles.
- (2) The requirements of this section do not apply to CI engines used for the propulsion of marine vessels or auxiliary CI engines used on marine vessels.
- (3) The requirements of this section do not apply to in-use stationary CI engines used in agricultural operations.

- (4) The requirements specified in subsections (e)(2)(A), (e)(2)(C), and (e)(4)(A) do not apply to new stationary CI engines used in agricultural operations.
- (5) The requirements specified in subsection (e)(3) do not apply to single cylinder cetane test engines used exclusively to determine the cetane number of diesel fuels in accordance with American Society for Testing and Materials (ASTM) Standard D 613-03b, "Standard Test Method for Cetane Number of Diesel Fuel Oil," as modified on June 10, 2003, which is incorporated herein by reference.
- (6) The requirements specified in subsections (e)(2)(B)3. and (e)(2)(D)1. do not apply to in-use stationary diesel-fueled CI engines used in emergency standby or prime applications that, prior to January 1, 2005, were required in writing by the district to meet and comply with either minimum technology requirements or performance standards implemented by the district from the "Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines," October 2000, which is incorporated herein by reference.
- (7) The requirements specified in subsection (e)(2)(B)3. do not apply to permitted in-use stationary emergency standby diesel-fueled CI engines that will be removed from service or replaced prior to January 1, 2009, in accordance with an approved Office of Statewide Health Planning Development (OSHDP) Compliance Plan that has been approved prior to January 1, 2009, except that this exemption does not apply to replacement engines for the engines that are removed from service under the OSHDP plan.
- (8) The requirements in subsections (e)(1), (e)(2)(C), and (e)(2)(D) do not apply to any stationary diesel-fueled CI engine used solely for the training and testing of United States Department of Defense (U.S. DoD) students or personnel of any U.S. military branch in the operation, maintenance, repair and rebuilding of engines when such training engines are required to be configured and designed similarly to counterpart engines used by the U.S. DoD, U.S. Military services or North Atlantic Treaty Organization (NATO) forces in combat, combat support, combat service support, tactical or relief operations used on land or at sea.
- (9) The requirements specified in subsections (e)(1) and (e)(2) do not apply to stationary diesel-fueled CI engines used solely on San Nicolas or San Clemente Islands. The Ventura County Air Pollution Control District Air Pollution Control Officer (APCO) and the South Coast Air Quality Management District APCO shall review the land use plans for the island in their jurisdiction at least once every five (5) years and withdraw this exemption if the land use plans are changed to allow use by the general public of the islands.
- (10) The requirements specified in subsection (e)(2) do not apply to stationary diesel-fueled engines used solely on outer continental shelf (OCS) platforms located within 25 miles of California's seaward boundary.
- (11) **Exemption for Emergency Engines at Nuclear Facilities.** The requirements in subsection (e)(2)(B)3. do not apply to any in-use stationary diesel-fueled CI engines for which all of the following criteria are met:

- (A) the engine is an emergency standby engine;
- (B) the engine is subject to the requirements of the U.S. Nuclear Regulatory Commission;
- (C) the engine is used solely for the safe shutdown and maintenance of a nuclear facility when normal power service fails or is lost; and
- (D) the engine undergoes maintenance and testing operations for no more than 200 hours cumulatively per calendar year.

**(12) Request for Exemption for Low-Use Prime Engines Outside of School Boundaries.**

The district APCO may approve a Request for Exemption from the provisions of subsection (e)(2)(D)1. for any in-use stationary diesel-fueled CI engine located beyond school boundaries, provided the approval is in writing, and the writing specifies all of the following conditions to be met by the owner or operator:

- (A) the engine is a prime engine;
- (B) the engine is located more than 500 feet from a school at all times;
- (C) the engine operates no more than 20 hours cumulatively per year. The district APCO may use a different number of hours for applying this exemption if the diesel-fueled CI engine is used solely to start a combustion gas turbine engine, provided the number of hours used for this exemption is justified by the district, on a case-by-case basis, with consideration of factors including, at a minimum, the operational requirements of a facility using a combustion gas turbine engine and the impacts of the emissions from the engine at any receptor location.

- (13) The requirements in subsections (e)(2)(B)3. and (e)(2)(D)1. do not apply to in-use dual-fueled diesel pilot CI engines that use an alternative fuel or an alternative diesel fuel.
- (14) The requirements in subsection (e)(1), (e)(2)(A)3., (e)(2)(B)3., (e)(2)(C)1., and (e)(2)(D)1. do not apply to dual-fueled diesel pilot CI engines that use diesel fuel and digester gas or landfill gas.
- (15) The requirements in subsections (e)(2)(B)3. and (e)(2)(D)1. do not apply to in-use stationary diesel-fueled CI engines that have selective catalytic reduction systems.
- (16) The requirements of subsection (e)(2)(B)3. do not apply to in-use emergency fire pump assemblies that are driven directly by stationary diesel-fueled CI engines and only operated the number of hours necessary to comply with the testing requirements of National Fire Protection Association (NFPA) 25 – “Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,” 1998 edition, which is incorporated herein by reference.
- (17) The requirements of subsection (e)(1), (e)(2)(A)3., (e)(2)(B)3., (e)(2)(C), and (e)(2)(D) do not apply to any stationary diesel-fueled CI engine used to power equipment that is owned by the National Aeronautics and Space Administration (NASA) and used solely at manned-space flight facilities including launch, tracking, and landing sites, provided the District APCO approves this exemption in writing. This exemption only applies to diesel engines that power equipment which is maintained in the same configuration as similar equipment at all manned space flight facilities.

**(18) Request for Delay in Implementation for Remotely Located In-Use Prime Engines.**

Prior to January 1, 2011, the district APCO may approve a Request for Delay in Implementation from the provisions of (e)(2)(D)1. until January 1, 2011, for any in-use stationary diesel-fueled CI engine, provided the approval is in writing, and the writing specifies all the following conditions to be met by the owner or operator:

- (A) the engine is a prime engine, and
- (B) the engine is located more than one mile from any receptor location, and
- (C) the impacts of the emissions from the engine at any receptor location result in:
  - 1. a prioritization score of less than 1.0; and
  - 2. a maximum cancer risk of less than 1 in a million; and
  - 3. a maximum Hazard Index Value of less than 0.1.

**(19) Request for Delay in Implementation of Fuel Requirements.** Prior to January 1, 2006, the district may approve a Request for Delay in implementation from the provisions of (e)(1) until a date as determined by the district, for any new or in-use stationary diesel-fueled CI engine, provided the approval is in writing, and the writing specifies the following information:

- 1. the engine is a new stationary CI engine or an in-use stationary diesel-fueled CI engine, and
- 2. the engine's fuel consumption rate, and
- 3. the identification of the fuel in the fuel tank at the time of approval, and
- 4. the specification of the fuel in the fuel tank at the time of approval; and
- 5. the amount of fuel in the fuel tank at the time of approval; and
- 6. the anticipated number of hours per year the engine is planned to be operated; and
- 7. the date when compliance with the fuel use requirements specified in subsection (e)(1) is required.

**(d) Definitions**

For purposes of this section, the following definitions apply:

- (1) "Agricultural Operations" means the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. Agricultural operations do not include activities involving the processing or distribution of crops or fowl.
- (2) "Air Pollution Control Officer (APCO)" means the Executive Officer or director of a district, or his or her designated representative.
- (3) "Alternative Fuel" means natural gas, propane, ethanol, or methanol.
- (4) "Alternative Diesel Fuel" means any fuel used in a CI engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM D975-81, "Standard Specification for Diesel Fuel Oils," as modified in May 1982, which is incorporated herein by reference,

or an alternative fuel, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:

- (A) the additive is supplied to the engine fuel by an on-board dosing mechanism, or
  - (B) the additive is directly mixed into the base fuel inside the fuel tank of the engine, or
  - (C) the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel combination is mixed than required for a single fueling of a single engine.
- (5) "Approach Light System with Sequenced Flasher Lights in Category 1 and Category 2 Configurations (ALSF-1 and ALSF-2)" means high intensity approach lighting systems with sequenced flashers used at airports to illuminate specified runways during category II or III weather conditions, where category II means a decision height of 100 feet and runway visual range of 1,200 feet, and category III means no decision height or decision height below 100 feet and runway visual range of 700 feet.
- (6) "Baseline" or "Baseline Emissions" means the emissions level of a diesel-fueled engine using CARB diesel fuel as configured upon initial installation or by January 1, 2003, whichever is later.
- (7) "California Air Resources Board (CARB) Diesel Fuel" means any diesel fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM D975-81, "Standard Specification for Diesel Fuel Oils," as modified in May 1982, which is incorporated herein by reference, and that meets the specifications defined in title 13 CCR, sections 2281, 2282, and 2284.
- (8) "Cancer Risk" means the characterization of the probability of developing cancer from exposure to environmental chemical hazards, in accordance with the methodologies specified in "The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments," Office of Environmental Health Hazard Assessment, August 2003, which is incorporated herein by reference.
- (9) "Carbon Monoxide (CO)" is a colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels.
- (10) "Combustion Gas Turbine Engine" means an internal combustion gas or liquid-fueled device consisting of compressor, combustor, and power turbine used to power an electrical generator.
- (11) "Compression Ignition (CI) Engine" means an internal combustion engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a compression ignition engine.

- (12) "Control Area" means any electrical region in California that regulates its power generation in order to balance electrical loads and maintain planned interchange schedules with other control areas.
- (13) "Cumulatively" means the aggregation of hours or days of engine use, and any portion of an hour or day of engine use, toward a specified time limit(s).
- (14) "Demand Response Program (DRP)" means a program for reducing electrical demand using an Interruptible Service Contract (ISC) or Rolling Blackout Reduction Program (RBRP).
- (15) "Diesel Fuel" means any fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel, including any mixture of primarily liquid hydrocarbons - organic compounds consisting exclusively of the elements carbon and hydrogen - that is sold or represented by the supplier as suitable for use in an internal combustion, compression-ignition engine.
- (16) "Diesel-Fueled" means fueled by diesel fuel, CARB diesel fuel, or jet fuel, in whole or part.
- (17) "Diesel Particulate Filter (DPF)" means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.
- (18) "Diesel Particulate Matter (PM)" means the particles found in the exhaust of diesel-fueled CI engines as determined in accordance with the test methods identified in subsection (i).
- (19) "Digester Gas" is any gas derived from anaerobic decomposition of organic matter.
- (20) "District" has the same meaning as defined in the California Health and Safety Code, Section 39025.
- (21) "DRP Engine" means an engine that is enrolled in a DRP.
- (22) "Dual-fuel Diesel Pilot Engine" means a dual-fueled engine that uses diesel fuel as a pilot ignition source at an annual average ratio of less than 5 parts diesel fuel to 100 parts total fuel on an energy equivalent basis.
- (23) "Dual-fuel Engine" means any CI engine that is engineered and designed to operate on a combination of alternative fuels, such as compressed natural gas (CNG) or liquefied petroleum gas (LPG) and diesel fuel or an alternative diesel fuel. These engines have two separate fuel systems, which inject both fuels simultaneously into the engine combustion chamber.
- (24) "Emergency Standby Engine" means a stationary engine that meets the criteria specified in (A) and (B) and any combination of (C) or (D) or (E) below:

- (A) is installed for the primary purpose of providing electrical power or mechanical work during an emergency use and is not the source of primary power at the facility; and
  - (B) is operated to provide electrical power or mechanical work during an emergency use; and
  - (C) is operated under limited circumstances for maintenance and testing, emissions testing, or initial start-up testing, as specified in subsections (e)(2)(A), (e)(2)(B), and (e)(2)(F); or
  - (D) is operated under limited circumstances in response to an impending outage, as specified in subsections (e)(2)(A), (e)(2)(B), and (e)(2)(F); or
  - (E) is operated under limited circumstances under a DRP as specified in subsection (e)(2)(F).
- (25) “Emergency Use” means providing electrical power or mechanical work during any of the following events and subject to the following conditions:
- (A) the failure or loss of all or part of normal electrical power service or normal natural gas supply to the facility:
    - 1. which is caused by any reason other than the enforcement of a contractual obligation the owner or operator has with a third party or any other party; and
    - 2. which is demonstrated by the owner or operator to the district APCO’s satisfaction to have been beyond the reasonable control of the owner or operator;
  - (B) the failure of a facility’s internal power distribution system:
    - 1. which is caused by any reason other than the enforcement of a contractual obligation the owner or operator has with a third party or any other party; and
    - 2. which is demonstrated by the owner or operator to the district APCO’s satisfaction to have been beyond the reasonable control of the owner or operator;
  - (C) the pumping of water or sewage to prevent or mitigate a flood or sewage overflow;
  - (D) the pumping of water for fire suppression or protection;
  - (E) the powering of ALSF-1 and ALSF-2 airport runway lights under category II or III weather conditions;
  - (F) the pumping of water to maintain pressure in the water distribution system for the following reasons:
    - 1. a pipe break that substantially reduces water pressure; or
    - 2. high demand on the water supply system due to high use of water for fire suppression; or
    - 3. the breakdown of electric-powered pumping equipment at sewage treatment facilities or water delivery facilities.
- (26) “Emission Control Strategy” means any device, system, or strategy employed with a diesel-fueled CI engine that is intended to reduce emissions including, but not limited to, particulate filters, diesel oxidation catalysts, selective catalytic reduction systems, fuel additives used in combination with particulate filters, alternative diesel fuels, and any combination of the above.



- (27) "End User" means any person who purchases or leases a stationary diesel-fueled engine for operation in California. Persons purchasing engines for resale are not considered "end users."
- (28) "Enrolled" means either of the following, whichever applies:
- (A) the ISC is in effect during the specified time period for an engine in an ISC; or
  - (B) the date the engine is entered into the RBRP.
- (29) "Executive Officer" means the executive officer of the Air Resources Board, or his or her designated representative.
- (30) "Facility" means one or more contiguous properties, in actual physical contact or separated solely by a public roadway or other public right-of-way, under common ownership on which engines operate.
- (31) "Fuel Additive" means any substance designed to be added to fuel or fuel systems or other engine-related engine systems such that it is present in-cylinder during combustion and has any of the following effects: decreased emissions, improved fuel economy, increased performance of the engine; or assists diesel emission control strategies in decreasing emissions, or improving fuel economy or increasing performance of the engine.
- (32) "Generator Set" means a CI engine coupled to a generator that is used as a source of electricity.
- (33) "Hazard Index" means the sum of individual acute or chronic hazard quotients for each substance affecting a particular toxicological endpoint, as determined in accordance with the requirements of "The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments," Office of Environmental Health Hazard Assessment, August 2003, which is incorporated herein by reference.
- (34) "HC" means the sum of all hydrocarbon air pollutants.
- (35) "In-Use" means a CI engine that is not a "new" CI engine.
- (36) "Initial Start-up Testing" means operating the engine or supported equipment to ensure their proper performance either:
- (A) for the first time after initial installation of a new stationary diesel-fueled CI engine at a facility, or
  - (B) for the first time after installation of emission control equipment on an in-use stationary diesel-fueled CI engine.
- (37) "Interruptible Service Contract (ISC)" means a contractual arrangement in which a utility distribution company provides lower energy costs to a nonresidential electrical customer in exchange for the ability to reduce or interrupt the customer's electrical service during a Stage 2 or Stage 3 alert, or during a transmission emergency.

(38) “Jet Fuel” means fuel meeting any of the following specifications:

- (A) ASTM D 1655-02, “Standard Specification for Aviation Turbine Fuels,” which is incorporated herein by reference. Jet fuels meeting this specification include Jet A, Jet A-1, and Jet B;
- (B) Military Detail (MIL-DTL) 5624T, “Turbine Fuels, Aviation, Grades Jet Propellant (JP) JP-4, JP-5, and JP-5/JP8 ST,” dated September 18, 1998, which is incorporated herein by reference; and
- (C) Military Test (MIL-T) 83133E, “Turbine Fuels, Aviation, Kerosene Types, North Atlantic Treaty Organization (NATO) F-34 (JP-8), NATO F-35, and JP-8+100,” dated April 1, 1999, which is incorporated herein by reference.

(39) “Landfill Gas” means any gas derived through any biological process from the decomposition of waste buried within a waste disposal site.

(40) “Location” means any single site at a facility.

(41) “Maintenance and Testing” means operating an emergency standby CI engine to:

- (A) evaluate the ability of the engine or its supported equipment to perform during an emergency. “Supported Equipment” includes, but is not limited to, generators, pumps, transformers, switchgear, and breakers; or
- (B) facilitate the training of personnel on emergency activities; or
- (C) provide electric power for the facility when the utility distribution company takes its power distribution equipment offline to service that equipment for any reason that does not qualify as an emergency use.

(42) “Maximum Rated Power” means the maximum brake kilowatt output of an engine as determined from any of the following, whichever is the greatest: (A) the manufacturer’s sales and service literature, (B) the nameplate of the unit, or (C) if applicable, as shown in the application for certification of the engine.

(43) “Model Year” means the stationary CI engine manufacturer’s annual production period, which includes January 1st of a calendar year, or if the manufacturer has no annual production period, the calendar year.

(44) “New” or “New CI Engine” means the following:

- (A) a stationary CI engine installed at a facility after January 1, 2005, including an engine relocated from an off-site location after January 1, 2005, except the following shall be deemed in-use engines:
  - 1. a replacement stationary CI engine that is installed to temporarily replace an in-use engine while the in-use engine is undergoing maintenance and testing, provided the replacement engine emits no more than the in-use engine, and the replacement engine is not used more than 180 days cumulatively in any 12-month rolling period;
  - 2. an engine that was approved by the District for installation prior to the effective date of this section but is not installed until after January 1, 2005;

3. an engine that is one of four or more engines owned by an owner or operator and is relocated prior to January 1, 2008, to an offsite location that is owned by the same owner or operator;
4. an engine installed prior to or on January 1, 2005, in a facility used in agricultural operations that is owned by an owner or operator, which is subsequently relocated to an offsite location that is owned by the same owner or operator.
5. an engine installed at a facility prior to January 1, 2005 and relocated within the same facility after January 1, 2005.

(B) a stationary CI engine that has been reconstructed after January 1, 2005, shall be deemed a new engine unless the sum of the costs of all individual reconstructions of that engine after January 1, 2005, is less than 50% of the lowest-available purchase price, determined at the time of the most recent reconstruction, of a complete, comparably-equipped new engine (within  $\pm 10\%$  of the reconstructed engine's brake horsepower rating).

For purposes of this definition, the cost of reconstruction and the cost of a comparable new engine shall not include the cost of equipment and devices required to meet the requirements of this ATCM.

- (45) "Nitrogen Oxides (NO<sub>x</sub>)" means compounds of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), and other oxides of nitrogen, which are typically created during combustion processes and are major contributors to smog formation and acid deposition.
- (46) "Non-Methane Hydrocarbons (NMHC)" means the sum of all hydrocarbon air pollutants except methane.
- (47) Outer Continental Shelf (OCS) shall have the meaning provided by section 2 of the Outer Continental Shelf Lands Act (43 U.S.C. Section 1331 et seq.).
- (48) "Owner or Operator" means any person subject to the requirements of this section, including but not limited to:
  - (A) an individual, trust, firm, joint stock company, business concern, partnership, limited liability company, association, or corporation including but not limited to, a government corporation; and
  - (B) any city, county, district, commission, the state or any department, agency, or political subdivision thereof, any interstate body, and the federal government or any department or agency thereof to the extent permitted by law.
- (49) "Particulate Matter (PM)" means the particles found in the exhaust of CI engines, which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.
- (50) "Portable CI Engine" means a compression ignition (CI) engine designed and capable of being carried or moved from one location to another, except as provided in subsection (d)(63). Indicators of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. The provisions of this definition

notwithstanding, an engine with indicators of portability that remains at the same facility location for more than 12 consecutive rolling months or 365 rolling days, whichever occurs first, not including time spent in a storage facility, shall be deemed a stationary engine.

- (51) “Prime CI Engine” means a stationary CI engine that is not an emergency standby CI engine.
- (52) “Prioritization Score” means the numeric value used to rank facilities in order of their potential to pose significant risk to human receptors. Prioritization scores are calculated per the process described in the “CAPCOA Air Toxics ‘Hot Spots’ Program Facility Prioritization Guidelines,” California Air Pollution Control Officer’s Association (CAPCOA), July 1990, which is incorporated herein by reference.
- (53) “Rated Brake Horsepower (bhp)” means:
  - (A) for in-use engines, the maximum brake horsepower output of an engine as determined from any of the following, whichever reflects the engine’s configuration as of January 1, 2005:
    - 1. the manufacturer’s sales and service literature;
    - 2. the nameplate of the engine; or
    - 3. if applicable, as shown in the application for certification of the engine;
  - (B) for new engines, the maximum brake horsepower output of an engine as determined from any of the following, whichever reflects the engine’s configuration upon the engine’s initial installation at the facility:
    - 1. the manufacturer’s sales and service literature;
    - 2. the nameplate of the engine; or
    - 3. if applicable, as shown in the application for certification of the engine.
- (54) “Receptor location” means any location outside the boundaries of a facility where a person may experience exposure to diesel exhaust due to the operation of a stationary diesel-fueled CI engine. Receptor locations include, but are not limited to, residences, businesses, hospitals, daycare centers, and schools.
- (55) “Reconstruction” means the rebuilding of the engine or the replacement of engine parts, including pollution control devices, but excluding operating fluids; lubricants; and other consumables such as air filters, fuel filters, and glow plugs that are subject to regular replacement.
- (56) “Rolling Blackout Reduction Program (RBRP)” means a contractual arrangement, implemented by the San Diego Gas and Electric Company (SDGE) in San Diego County, in which SDGE pays a nonresidential electrical customer \$0.20 per kW-hr of reduced demand in exchange for the customer using its diesel-fueled engines to reduce its electrical demand upon request by SDGE by 15% or more, with a minimum of 100 kW reduction, during either a Stage 3 alert or a transmission emergency.
- (57) “Rotating Outage” means a controlled, involuntary curtailment of electrical power service to consumers as ordered by the Utility Distribution Company.

- (58) “School” or “School Grounds” means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). “School” or “School Grounds” includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property.
- (59) “Selective Catalytic Reduction (SCR) System” means an emission control system that reduces NOx emissions through the catalytic reduction of NOx in diesel exhaust by injecting nitrogen-containing compounds into the exhaust stream, such as ammonia or urea.
- (60) “Seller” means any person who sells, leases, or offers for sale any stationary diesel-fueled engine directly to end users.
- (61) “Stage 2 Alert” means an official forecast or declaration by the California Independent System Operator that the operating reserves of electrical power will fall or have fallen below 5 percent.
- (62) “Stage 3 Alert” means an official forecast or declaration by the California Independent System Operator that the operating reserves of electrical power will fall or have fallen below 1.5 percent.
- (63) “Stationary CI Engine” means a CI engine that is designed to stay in one location, or remains in one location. A CI engine is stationary if any of the following are true:
- (A) the engine or its replacement is attached to a foundation, or if not so attached, resides at the same location for more than 12 consecutive months. Any engine such as backup or standby engines, that replaces an engine at a location and is intended to perform the same or similar function as the engine(s) being replaced, shall be included in calculating the consecutive time period. The cumulative time of all engine(s), including the time between the removal of the original engine(s) and installation of the replacement engine(s), will be counted toward the consecutive time period; or
  - (B) the engine remains or will reside at a location for less than 12 consecutive months if the engine is located at a seasonal source and operates during the full annual operating period of the seasonal source, where a seasonal source is a stationary source that remains in a single location on a permanent basis (at least two years) and that operates at that single location at least three months each year; or
  - (C) the engine is moved from one location to another in an attempt to circumvent the 12 month residence time requirement. The period during which the engine is maintained at a storage facility shall be excluded from the residency time determination.
- (64) “Stationary Source” means any building, structure, facility, or installation that emits any pollutant directly or as fugitive emissions. Building, structure, facility, or installation include all pollutant emitting activities which:

- (A) are under the same ownership or operation, or which are owned or operated by entities which are under common control; and
  - (B) belong to the same industrial grouping either by virtue of falling within the same two-digit standard industrial code or by virtue of being part of a common industrial process, manufacturing process, or connected process involving a common raw material; and
  - (C) are located on one or more contiguous or adjacent properties.
- (65) “Transmission Constrained Area” means the specific location that is subject to localized operating reserve deficiencies due to the failure of the normal electrical power distribution system.
- (66) “Transmission Emergency” means an official forecast or declaration by the California Independent System Operator that the available electrical power transmission capacity to a transmission constrained area is insufficient and may result in an uncontrolled local grid collapse in the transmission constrained area.
- (67) “Utility Distribution Company” means one of several organizations that control energy transmission and distribution in California. Utility Distribution Companies include, but are not limited to, the Pacific Gas and Electric Company, the San Diego Gas and Electric Company, Southern California Edison, Los Angeles Department of Water and Power, the Imperial Irrigation District, and the Sacramento Municipal Utility District.
- (68) “Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (Verification Procedure)” means the ARB regulatory procedure codified in title 13, CCR, sections 2700-2710, which is incorporated herein by reference, that engine manufacturers, sellers, owners, or operators may use to verify the reductions of diesel PM or NOx from in-use diesel engines using a particular emission control strategy.
- (69) “Verified Diesel Emission Control Strategy” means an emission control strategy, designed primarily for the reduction of diesel PM emissions, which has been verified pursuant to the Verification Procedure.

#### **(e) Requirements**

- (1) Fuel and Fuel Additive Requirements for New and In-Use Stationary CI Engines That Have a Rated Brake Horsepower of Greater than 50 (>50 bhp)
- (A) As of January 1, 2006, except as provided for in subsection (c), no owner or operator of a new stationary CI engine or an in-use prime stationary diesel-fueled CI engines shall fuel the engine with any fuel unless the fuel is one of the following:
- 1. CARB Diesel Fuel, or
  - 2. an alternative diesel fuel that meets the requirements of the Verification Procedure, or
  - 3. an alternative fuel, or

4. CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure, or
  5. any combination of (e)(1)(A)1. through (e)(1)(A)4. above.
- (B) As of January 1, 2006, except as provided for in subsection (c), no owner or operator of an in-use emergency standby stationary diesel-fueled CI engine shall add to the engine or any fuel tank directly attached to the engine any fuel unless the fuel is one of the following:
1. CARB Diesel Fuel, or
  2. an alternative diesel fuel that meets the requirements of the Verification Procedure, or
  3. an alternative fuel, or
  4. CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure, or
  5. any combination of (e)(1)(B)1. through (e)(1)(B)4. above.
- (2) Operating Requirements and Emission Standards for New and In-Use Stationary Diesel-Fueled CI Engines That Have a Rated Brake Horsepower of Greater than 50 (>50 bhp).
- (A) ***New Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating Requirements and Emission Standards***
1. **At-School and Near-School Provisions.** No owner or operator shall operate a new stationary emergency standby diesel-fueled CI engine for non-emergency use, including maintenance and testing, during the following periods:
    - a. whenever there is a school sponsored activity, if the engine is located on school grounds, and
    - b. between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds. Subsection (e)(2)(A)1. does not apply if the engine emits no more than 0.01 g/bhp-hr of diesel PM.
  2. No owner or operator shall operate any new stationary emergency standby diesel-fueled CI engine (>50 bhp) in response to the notification of an impending rotating outage, unless all the following criteria are met:
    - a. the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and
    - b. the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a specified time; and

- c. the engine is located in a specific location that is subject to the rotating outage; and
  - d. the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
  - e. the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
3. As of January 1, 2005, except as provided in subsection (c), no person shall sell, offer for sale, purchase, or lease for use in California any stationary emergency standby diesel-fueled CI engine that has a rated brake horsepower greater than 50 unless it meets the following applicable emission standards, and no person shall operate any new stationary emergency standby diesel-fueled CI engine that has a rated brake horsepower greater than 50, unless it meets all of the following applicable operating requirements and emission standards specified in (e)(2)(A)3. (which are summarized in Table 1):
- a. Diesel PM Standard and Hours of Operating Requirements
    - I. General Requirements: New stationary emergency standby diesel-fueled engines (>50 bhp) shall:
      - i. emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr; or
      - ii. meet the current model year diesel PM standard specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (title 13 CCR, section 2423), whichever is more stringent; and
      - iii. not operate more than 50 hours per year for maintenance and testing purposes, except as provided in (e)(2)(A)3.a.II. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with (e)(2)(A)3.
    - II. The District may allow a new emergency standby diesel-fueled CI engine (> 50 hp) to operate up to 100 hours per year for maintenance and testing purposes on a site-specific basis, provided the diesel PM emission rate is less than or equal to 0.01 g/bhp-hr.



TABLE 1: SUMMARY OF THE EMISSION STANDARDS AND OPERATING REQUIREMENTS FOR NEW STATIONARY EMERGENCY STANDBY DIESEL-FUELED CI ENGINES > 50 BHP (SEE SUBSECTION (e)(2)(A)3.)				
DIESEL PM				OTHER POLLUTANTS
DIESEL PM STANDARDS (g/bhp-hr)	MAXIMUM ALLOWABLE ANNUAL HOURS OF OPERATION FOR ENGINES MEETING DIESEL PM STANDARDS			HC, NO <sub>x</sub> , NMHC+NO <sub>x</sub> , AND CO STANDARDS (g/bhp-hr)
	Emergency Use	Non-Emergency Use		
		Emission Testing to show compliance <sup>2</sup>	Maintenance & Testing (hours/year)	
≤0.15 <sup>1</sup>	Not Limited by ATCM <sup>3</sup>	Not Limited by ATCM <sup>3</sup>	50	Off-Road CI Engine Certification Standards for an off-road engine of the same model year and horsepower rating, or Tier 1 standards for an off-road engine of the same maximum rated power. <sup>4</sup>
≤0.01 <sup>1</sup>	Not Limited by ATCM <sup>3</sup>	Not Limited by ATCM <sup>3</sup>	51 to 100 (Upon approval by the District)	

1. Or off-road certification standard (title 13 CCR section 2423) for an off-road engine with the same maximum rated power, whichever is more stringent
2. Emission testing limited to testing to show compliance with subsections (e)(2)(A)3.
3. May be subject to emission or operational restrictions as defined in current applicable district rules, regulations, or policies.
4. The option to comply with the Tier 1 standards is available only if no off-road engine certification standards have been established for an off-road engine of the same model year and maximum rated power as the new stationary emergency standby diesel-fueled CI engine.

b. HC, NO<sub>x</sub>, NMHC + NO<sub>x</sub>, and CO standards: New stationary emergency standby diesel-fueled CI engines (> 50 bhp) must meet the standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the new stationary emergency standby diesel-fueled CI engine, then the new stationary emergency standby diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the new stationary emergency standby diesel-fueled CI engine's model year.

c. The District:

- I. may establish more stringent diesel PM, NMHC+NO<sub>x</sub>, HC, NO<sub>x</sub>, and CO emission rate standards; and
- II. may establish more stringent limits on hours of maintenance and testing on a site-specific basis; and
- III. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.

(B) ***In-Use Emergency Standby Diesel-Fueled CI Engine (> 50 bhp) Operating Requirements and Emission Standards***

1. No owner or operator shall operate any in-use stationary emergency standby diesel-fueled CI engine in response to the notification of an impending rotating outage unless all the following criteria are met:
  - a. the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and
  - b. the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a certain time; and
  - c. the engine is located in a specific location that is subject to the rotating outage; and
  - d. the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
  - e. the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
2. **At-School and Near-School Provisions.** No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine for non-emergency use, including maintenance and testing, during the following periods:
  - a. whenever there is a school sponsored activity, if the engine is located on school grounds, and
  - b. between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds. Subsection (e)(2)(B)2. does not apply if the engine emits no more than 0.01 g/bhp-hr of diesel PM.
3. Except as provided in subsection (c), no owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engines (> 50 hp) in California unless it meets, in accordance with the applicable compliance schedules specified in subsections (f) and (g), the following requirements (which are summarized in Table 2):

TABLE 2: SUMMARY OF THE EMISSION STANDARDS AND OPERATING REQUIREMENTS FOR IN-USE STATIONARY EMERGENCY STANDBY DIESEL-FUELED CI ENGINES > 50 BHP (SEE SUBSECTION (e)(2)(B)3.)				
DIESEL PM				OTHER POLLUTANTS
DIESEL PM STANDARDS (g/bhp-hr)	MAXIMUM ALLOWABLE ANNUAL HOURS OF OPERATION FOR ENGINES MEETING DIESEL PM STANDARDS			HC, NOx, NMHC+NOx, AND CO STANDARDS (g/bhp-hr)
	Emergency Use	Non-Emergency Use		
		Emission Testing to show compliance <sup>1</sup>	Maintenance & Testing (hours/year)	
>0.40 <sup>2</sup>	Not Limited by ATCM <sup>2</sup>	Not Limited by ATCM <sup>2</sup>	20	Not limited by ATCM <sup>2</sup>
>0.15 and ≤ 0.40	Not Limited by ATCM <sup>2</sup>	Not Limited by ATCM <sup>2</sup>	21 to 30	For engines with emission control strategies not verified through the verification procedure: Off-Road CI Engine Certification Standards for an off-road engine of the same model year and maximum rated power, or Tier 1 standards for an off-road engine of the same maximum rated power. <sup>3</sup>
>0.01 and ≤ 0.15	Not Limited by ATCM <sup>2</sup>	Not Limited by ATCM <sup>2</sup>	31 to 50 (Upon approval by the District)	
≤ 0.01	Not Limited by ATCM <sup>2</sup>	Not Limited by ATCM <sup>2</sup>	51 to 100 (Upon approval by the District)	
				<u>OR</u> Both (i) and (ii) must be met: (i) No increase in HC or NOx above 10% from baseline levels OR No increase in NMHC+NOx emissions above baseline levels  (ii) No increase in CO above 10% from baseline levels

1. Emission testing limited to testing to show compliance with subsections (e)(2)(B)3.
2. May be subject to emission or operational restrictions as defined in current applicable district rules, regulations, or policies.
3. The option to comply with the Tier 1 standards is available only if no off-road engine certification standards have been established for an off-road engine of the same model year and maximum rated power as the new stationary emergency standby diesel-fueled CI engine.

a. Diesel PM Standard and Hours of Operation Limitations

I. General Requirements:

- i. No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (>50 bhp) that emits diesel PM at a rate greater than 0.40 g/bhp-hr more than 20 hours per year for maintenance and testing purposes. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with (e)(2)(B)3.
- ii. No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (>50 bhp) that emits diesel PM at a rate less than or equal to 0.40 g/bhp-hr more than 30 hours per year for maintenance and testing purposes, except as provided in (e)(2)(B)3.a.II. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with (e)(2)(B)3.

II. The District may allow in-use stationary emergency standby diesel-fueled CI engines (> 50 bhp) to operate more than 30 hours per year for maintenance and testing purposes on a site-specific basis, provided the following limits are met:

- i. Up to 50 annual hours of operation are allowed for maintenance and testing purposes if the diesel PM emission rate is less than or equal to 0.15 g/bhp-hr.
- ii. Up to 100 annual hours of operation are allowed for maintenance and testing purposes if the diesel PM emission rate is less than or equal to 0.01 g/bhp-hr.

b. Additional Standards:

Owners or operators that choose to meet the diesel PM standards defined in subsection (e)(2)(B)3.a. with emission control strategies that are not verified through the Verification Procedure shall either:

- I. Meet the applicable HC, NO<sub>x</sub>, NMHC+NO<sub>x</sub>, and CO standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the in-use stationary emergency standby diesel-fueled CI engine, then the in-use stationary emergency standby diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the in-use

stationary emergency standby diesel-fueled CI engine's model year;

Or

- II. Not increase CO emission rates by more than 10% above baseline; and  
Not increase HC or NOx emission rates by more than 10% above baseline; or  
Not increase the sum of NMHC and NOx emission rates above baseline.

c. The District:

- I. may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate standards; and
- II. may establish more stringent limits on hours of maintenance and testing on a site-specific basis; and
- III. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.

**(C) *New Stationary Prime Diesel-Fueled CI Engine (> 50 bhp) Emission Standards***

As of January 1, 2005, except as provided in subsection (c), no person shall sell, purchase, or lease for use in California a new stationary prime diesel-fueled CI engine that has a rated brake horsepower greater than 50 unless it meets the following applicable emission standards, and no owner or operator shall operate any new stationary prime diesel-fueled CI engine that has a rated brake horsepower greater than 50 unless it meets all of the following emission standards and operational requirements (which are summarized in Table 3):

**TABLE 3: SUMMARY OF THE EMISSION STANDARDS FOR NEW STATIONARY PRIME DIESEL-FUELED CI ENGINES > 50 BHP (SEE SUBSECTION (e)(2)(C)1.)**

DIESEL PM STANDARDS (g/bhp-hr)	HC, NO <sub>x</sub> , NMHC+NO <sub>x</sub> , AND CO STANDARDS (g/bhp-hr)
<p>Meet the more stringent of:</p> <p style="text-align: center;"><math>\leq 0.01^1</math></p> <p style="text-align: center;">OR</p> <p>Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power</p>	<p>Off-Road CI Engine Certification Standard for an off-road engine of the same model year and maximum rated power, or Tier 1 standard for an off-road engine of the same maximum rated power.<sup>1,2</sup></p>

1. May be subject to additional emission limitations as specified in current district rules, regulations, or policies governing distributed generation.
2. The option to comply with the Tier 1 standards is available only if no off-road engine certification standards have been established for an off-road engine of the same model year and maximum rated power as the new stationary prime diesel-fueled CI engine.

1. Diesel PM Standard: All new stationary prime diesel-fueled CI engines (> 50 bhp) shall either emit diesel PM at a rate that is less than or equal to 0.01 grams diesel PM per brake-horsepower-hour (g/bhp-hr) or shall meet the current off-road PM certification standard for off-road engines of the same-maximum rated power (title 13, CCR, section 2423), whichever is more stringent;
2. HC, NO<sub>x</sub>, NMHC+NO<sub>x</sub>, and CO Standards: All new stationary prime diesel-fueled CI engines (> 50 bhp) shall meet the standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no limits have been established for an off-road engine of the same model year and maximum rated power as the new stationary prime diesel-fueled CI engine, then the new stationary prime diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423, for an off-road engine of the same maximum rated power, irrespective of the new stationary prime diesel-fueled CI engine's model year;
3. New stationary prime diesel-fueled CI engines that are used to provide electricity near the place of use (also known as "distributed generation") may be subject to additional emission limitations as specified in current district rules, policies, or regulations governing distributed generation;
4. The District may establish more stringent diesel PM, NMHC+NO<sub>x</sub>, HC, NO<sub>x</sub>, and CO emission rate limits on a site-specific basis.

**(D) *In-Use Stationary Prime Diesel-Fueled CI Engine (> 50 bhp) Emission Standards***

Except as provided in subsection (c), no owner or operator shall operate an in-use stationary prime diesel-fueled CI engines (> 50 bhp) in California unless it meets the following requirements (which are summarized in Table 4):

<b>TABLE 4: SUMMARY OF THE EMISSION STANDARDS FOR IN-USE STATIONARY PRIME DIESEL-FUELED CI ENGINES &gt; 50 BHP (SEE SUBSECTION (e)(2)(D)1.)</b>		
<b>DIESEL PM</b>		<b>OTHER POLLUTANTS</b>
<b>DIESEL PM STANDARDS (g/bhp-hr)</b>		<b>HC, NO<sub>x</sub>, NMHC+NO<sub>x</sub>, AND CO STANDARDS (g/bhp-hr)</b>
<b>Applicability</b>	<b>Standard</b>	
All off-road certified in-use prime engines	85% reduction from baseline levels (Option 1)  OR  0.01 g/bhp/hr (Option 2)	For engines with emission control strategies not verified through the verification procedure: Off-Road CI Engine Certification Standards for an off-road engine of the same model year and maximum rated power, or Tier 1 standards for an off-road engine of the same maximum rated power. <sup>1</sup>  OR  Both (i) and (ii) must be met:  (i) No increase in HC or NO <sub>x</sub> emissions above 10% from baseline levels  OR  No increase in NMHC+NO <sub>x</sub> emissions above baseline levels  (ii) No increase in CO above 10% from baseline levels
Only in-use prime engines NOT certified in accordance with the Off-Road Compression Ignition Standards	85% reduction from baseline levels (Option 1)  OR  0.01 g/bhp/hr (Option 2)  OR  [30% reduction from baseline levels  AND  0.01 g/bhp-hr by no later than July 1, 2011] (Option 3)	

1. The option to comply with the Tier 1 standards is available only if no off-road engine certification standards have been established for an off-road engine of the same model year and maximum rated power as the new stationary emergency standby diesel-fueled CI engine.

1. Diesel PM Standards: All in-use stationary prime diesel-fueled CI engines (> 50 bhp) certified in accordance with the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423) shall comply with either option 1 or option 2 below. All engines not certified in accordance with the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423) shall comply with option 1, option 2, or option 3 below:
  - a. Option 1: Reduce the diesel PM emission rate by at least 85 percent, by weight, from the baseline level, in accordance with the appropriate compliance schedule specified in subsections (f) and (g);
  - b. Option 2: Emit diesel PM at a rate less than or equal to 0.01 g/bhp-hr in accordance with the appropriate compliance schedule as specified in subsections (f) and (g);
  - c. Option 3: Reduce the diesel PM emission rate by at least 30% from the baseline level, by no later than January 1, 2006, and emit diesel PM at a rate of 0.01 g/bhp-hr or less by no later than July 1, 2011.
2. Additional Standards:

Owners or operators that choose to meet the diesel PM limits defined in subsection (e)(2)(D)1.a. with emission control strategies that are not verified through the Verification Procedure shall either:

- a. Meet the applicable HC, NO<sub>x</sub>, NMHC+NO<sub>x</sub>, and CO standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the in-use stationary prime diesel-fueled CI engine, then the in-use stationary prime diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the new stationary emergency standby diesel-fueled CI engine's model year; or
  - b. Not increase CO emission rates by more than 10% above baseline;  
and  
Not increase HC or NO<sub>x</sub> emission rates by more than 10% above baseline, or  
Not increase the sum of NMHC and NO<sub>x</sub> emission rates above baseline.
3. The District may establish more stringent diesel PM, NMHC+NO<sub>x</sub>, HC, NO<sub>x</sub>, and CO emission rate standards.



(E) ***Emission Standards for New Stationary Diesel-Fueled CI Engines (> 50 bhp) Used in Agricultural Operations***

1. As of January 1, 2005, except as provided in subsection (c) and subsection (e)(2)(E)2., no person shall sell, purchase, or lease for use in California any stationary diesel-fueled engine to be used in agricultural operations that has a rated brake horsepower greater than 50, or operate any new stationary diesel-fueled engine to be used in agricultural operations that has a rated brake horsepower greater than 50, unless the engine meets all of the following emission performance standards (which are summarized in Table 5.):

<b>TABLE 5: SUMMARY OF THE EMISSION STANDARDS FOR NEW STATIONARY DIESEL-FUELED CI ENGINES &gt; 50 BHP USED IN AGRICULTURAL OPERATIONS (SEE SUBSECTION (e)(2)(E))</b>	
<b>DIESEL PM</b>	<b>OTHER POLLUTANTS</b>
<b>DIESEL PM STANDARDS (g/bhp-hr)</b>	<b>HC, NO<sub>x</sub>, NMHC+NO<sub>x</sub>, AND CO STANDARDS (g/bhp-hr)</b>
$\leq 0.15^1$  OR  Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power, whichever is more stringent.	Off-Road CI Engine Certification Standard for an off-road engine of the same model year and maximum rated power, or Tier 1 standard for an off-road engine of the same maximum rated power. <sup>1</sup>

1. Prior to January 1, 2008, these limits shall not apply to engines funded under State or federal incentive funding programs, as specified in (e)(2)(E)2.
  - a. Diesel PM Standard: New agricultural stationary diesel-fueled CI engines shall emit no more than 0.15 g/bhp-hr diesel particulate matter (PM) limit or shall meet the current standards for off-road engines of the same maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423), whichever is lower; and
  - b. NMHC, NO<sub>x</sub>, and CO Standards: New agricultural stationary diesel-fueled CI engines shall meet the HC, NO<sub>x</sub>, (or NMHC+NO<sub>x</sub>, if applicable) and CO standards for off-road engines of the same model year and maximum rated power, as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no limits have been established for an off-road engine of the same model year and maximum rated power as the new agricultural stationary diesel-fueled CI engine, then the new agricultural stationary diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423, for an off-road engine of the same maximum rated power, irrespective of the new agricultural diesel-fueled CI engine's model year.

2. Prior to January 1, 2008, the requirements of subsections (e)(2)(E)1. shall not apply to any stationary diesel-fueled CI engine that:
  - a. is used in agricultural operations; and
  - b. was funded under a State or federal incentive funding program; and
  - c. was sold for use in another agricultural operation, provided the stationary diesel-fueled CI engine complies with Tier II Off-Road Compression Ignition Standards for off-road engines of the same maximum rated power (title 13, CCR, section 2423).

For purposes of this subsection, State or federal incentive funding programs include, but are not limited to, California's Carl Moyer Program, as set forth in title 17, Part 5, Chapter 9 of the California Health and Safety Code, and the U.S. Department of Agriculture's Environmental Quality Incentives Program (EQIP), as set forth in title 7, Chapter XIV, Part 1466 of the Code of Federal Regulations.

**(F) *Operating Requirements and Emission Standards for New and In-Use Emergency Standby Stationary Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (>50 bhp) Used in Demand Response Programs (DRP Engines)***

1. New Emergency Standby Diesel-Fueled CI DRP Engines (>50 bhp) Operating Requirements and Emission Standards
  - a. **At-School and Near-School Provisions.** No owner or operator shall operate a new stationary emergency standby diesel-fueled CI DRP engine for non-emergency use, including maintenance and testing, during the following periods:
    - I. whenever there is a school sponsored activity, if the engine is located on school grounds; and
    - II. between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds. Subsection (e)(2)(F)1.a. does not apply if the engine emits no more than 0.01 g/bhp-hr of diesel PM.
  - b. No owner or operator shall operate any new stationary emergency standby diesel-fueled CI DRP engine (>50 bhp) in response to the notification of an impending rotating outage, unless the engine is operating pursuant to a DRP, or all of the following criteria are met:
    - I. the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and
    - II. the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects

- to issue such an order at a specified time; and
  - III. the engine is in a specific location that is subject to the rotating outage in the control area; and
  - IV. the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
  - V. the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- c. Except as provided in subsection (c), no owner or operator shall operate any new stationary emergency standby diesel-fueled CI DRP engine (>50 bhp), unless it meets all of the following applicable operating requirements and emission standards:
- I. Diesel PM Standard and Hours of Operating Requirements
    - i. New DRP Engines enrolled in the RBRP on or after January 1, 2005, and prior to January 1, 2008, shall:
      - aa. meet the requirements specified in (e)(2)(A)3. and
      - bb. not operate more than 75 hours per year for RBRP operation.
    - ii. New DRP Engines enrolled in the RBRP on or after January 1, 2008, shall:
      - aa. meet the more stringent diesel PM standard of either 0.01 g/bhp-hr of diesel PM; or
      - bb. the current model year diesel PM standard specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (title 13, CCR, section 2423); and
      - cc. comply with the limitations on the hours of operation for maintenance and testing as specified in (e)(2)(A)3.a.II.; and
      - dd. not operate more than 75 hours per year for RBRP operation.
    - iii. New DRP Engines enrolled in an ISC on or after January 1, 2005, shall:
      - aa. meet the more stringent diesel PM standard of either 0.01 g/bhp-hr diesel PM; or
      - bb. the current model year diesel PM standard specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (title 13, CCR, section 2423); and
      - cc. comply with the limitations on the hours of operation for maintenance and testing as specified in (e)(2)(A)3.a.II.; and
      - dd. not operate more than 150 hours per year for ISC operation.

II. HC, NO<sub>x</sub>, NMHC + NO<sub>x</sub>, and CO standards: No owner or operator shall operate any new stationary emergency standby diesel-fueled CI DRP engine (>50 bhp), unless it meets the standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the new stationary emergency standby diesel-fueled CI DRP engine, then the new stationary emergency standby diesel-fueled CI DRP engine shall meet the Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the new stationary emergency standby diesel-fueled CI DRP engine's model year.

III. The District:

- i. may establish more stringent diesel PM, NMHC+NO<sub>x</sub>, HC, NO<sub>x</sub>, and CO emission rate standards; and
- ii. may establish more stringent maintenance and testing hour of operation standards on a site-specific basis; and
- iii. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.

2. In-Use Emergency Standby Diesel-Fueled CI DRP Engine (> 50 bhp)  
Operating Requirements and Emission Standards

- a. **At-School and Near-School Provisions.** No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine for non-emergency use, including maintenance and testing, during the following periods:
  - I. whenever there is a school sponsored activity, if the engine is located on school grounds; and
  - II. between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds. Subsection (e)(2)(F)2.a. does not apply if the engine emits no more than 0.01 g/bhp-hr of diesel PM.
- b. No owner or operator shall operate any in-use stationary emergency standby diesel-fueled CI DRP engine (>50 bhp) in response to the notification of an impending rotating outage, unless the engine is operating pursuant to a DRP, or all of the following criteria are met:
  - I. the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and

- II. the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a certain time; and
  - III. the engine is in a specific location that is subject to the rotating outage in the control area; and
  - IV. the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
  - V. the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- c. Except as provided in subsection (c), no owner or operator shall operate any in-use stationary emergency standby diesel-fueled CI DRP engine (> 50 hp) unless it meets all of the following applicable operating requirements and emission standards:
- I. Diesel PM Standard and Hours of Operation Requirements
    - i. In-Use DRP Engines enrolled in the RBRP prior to January 1, 2005, shall:
      - aa. meet the diesel PM standards and hour of operation limitations specified in (e)(2)(B)3.a. and (e)(2)(B)3.b.; and
      - bb. not operate more than 75 hours per year for RBRP operation.
    - ii. In-Use DRP Engines enrolled in the RBRP on or after January 1, 2005, and prior to January 1, 2008, shall:
      - aa. meet a diesel PM standard of 0.15 g/bhp-hr diesel PM; and
      - bb. meet the requirements specified in (e)(2)(B)3.a. for maintenance and testing hours of operation; and
      - cc. not operate more than 75 hours per year for RBRP operation.
    - iii. In-Use DRP Engines enrolled in the RBRP on or after January 1, 2008, shall:
      - aa. meet a diesel PM standard of 0.01 g/bhp-hr diesel PM; and
      - bb. meet the requirements specified in (e)(2)(B)3.a. for maintenance and testing hours of operation; and
      - cc. not operate more than 75 hours per year for RBRP operation.
    - iv. In-Use DRP Engines enrolled in an ISC prior to January 1, 2005, shall as of January 1, 2006:
      - aa. meet a diesel PM standard of 0.15 g/bhp-hr diesel PM; and
      - bb. meet the requirements specified in (e)(2)(B)3.a. for



### III. The District:

- i. may establish more stringent diesel PM, NMHC+NO<sub>x</sub>, HC, NO<sub>x</sub>, and CO emission rate standards; and
  - ii. may establish more stringent limits on hours of maintenance and testing on a site-specific basis; and
  - iii. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.
3. Other Requirements Specific to RBRP Engines and the San Diego Gas and Electric Company (SDGE)
  - a. The sum total electrical generation (also known as the “total load reduction capacity”) from all diesel-fueled engines dispatched in the RBRP shall not exceed 80.0 megawatts (MW) at any time.
  - b. RBRP Engines shall be dispatched by SDGE into service in accordance with a district-approved dispatch protocol as specified in subsection (e)(4)(J)2.
4. Requirements Applicable to DRP Engines after a DRP is Terminated

After a DRP is terminated by either the Utility Distribution Company or the engine owner or operator, the DRP engine shall remain subject to the requirements of subsection (e)(2)(F) as if the DRP were still in effect.

#### (3) Emission Standards for New Stationary Diesel-Fueled CI Engines, Less Than or Equal to 50 Brake Horsepower ( $\leq 50$ bhp).

As of January 1, 2005, except as provided in subsection (c), no owner or operator shall sell, offer for sale, or lease for use in California any stationary diesel-fueled CI engine that has a rated brake horsepower less than or equal to 50, unless the engine meets the current Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423) for PM, NMHC+NO<sub>x</sub>, and CO for off-road engines of the same maximum rated power. (These requirements are summarized in Table 6.)

<b>TABLE 6 : SUMMARY OF THE EMISSION STANDARDS FOR STATIONARY DIESEL-FUELED CI ENGINES <math>\leq 50</math> BHP (SEE SUBSECTION (e)(3))</b>
DIESEL PM STANDARDS, NMHC+NO <sub>x</sub> , AND CO STANDARDS (g/bhp-hr)
Current Off-Road CI Engine Certification Standard for an off-road engine of the same model year and maximum rated power.

(4) Recordkeeping, Reporting, and Monitoring Requirements

(A) Reporting Requirements for Owners or Operators of New and In-Use Stationary CI Engines, Including Non-Diesel-Fueled CI Engines, Having a Rated Horsepower Greater than 50 (> 50 bhp)

1. Except as provided in subsection (c) and subsection (e)(4)(A)5. below, prior to the installation of any new stationary CI engine (> 50 bhp) at a facility, each owner or operator shall provide the information identified in subsection (e)(4)(A)3. to the District APCO.
2. Except as provided in subsection (c) and subsection (e)(4)(A)5. below, and no later than July 1, 2005, each owner or operator of an in-use stationary CI engine (> 50 bhp) shall provide the information specified in subsection (e)(4)(A)3. to the District APCO.
3. Each owner or operator shall submit to the District APCO the following information for each new and in-use stationary CI engine (>50 bhp) in accordance with the requirements of subsections (e)(4)(A)1. and (e)(4)(A)2. above:
  - a. Owner/Operator Contact Information
    - I. Company name
    - II. Contact name, phone number, address, e-mail address
    - III. Address of engine(s)
  - b. Engine Information
    - I. Make,
    - II. Model,
    - III. Engine Family,
    - IV. Serial number,
    - V. Year of manufacture (if unable to determine, approximate age),
    - VI. Rated Brake Horsepower Rating,
    - VII. Exhaust stack height from ground,
    - VIII. Engine Emission Factors and supporting data for PM, NO<sub>x</sub> and NMHC separately or NMHC+NO<sub>x</sub>, and CO, (if available) from manufacturers data, source tests, or other sources (specify),
    - IX. Diameter of stack outlet,
    - X. Direction of outlet (horizontal or vertical),
    - XI. End of stack (open or capped),
    - XII. Control equipment (if applicable)
      - i. Turbocharger,
      - ii. Aftercooler,
      - iii. Injection Timing Retard,
      - iv. Catalyst,
      - v. Diesel Particulate Filter,
      - vi. Other;



- c. Fuel(s) Used
  - I. CARB Diesel,
  - II. Jet fuel,
  - III. Diesel,
  - IV. Alternative diesel fuel (specify),
  - V. Alternative fuel (specify),
  - VI. Combination (Dual fuel) (specify),
  - VII. Other (specify);
- d. Operation Information
  - I. Describe general use of engine,
  - II. Typical load (percent of maximum bhp rating),
  - III. Typical annual hours of operation,
  - IV. If seasonal, months of year operated and typical hours per month operated,
  - V. Fuel usage rate (if available);
- e. Receptor Information
  - I. Nearest receptor description (receptor type),
  - II. Distance to nearest receptor (feet or meters),
  - III. Distance to nearest school grounds;
- f. State whether the engine is included in an existing AB2588 emission inventory.

4. Except as provided in subsection (c), and no later than 180 days prior to the earliest applicable compliance date specified in subsections (f) or (g), each owner or operator of an in-use stationary diesel-fueled CI engine (> 50 bhp) shall provide the following additional information to the District APCO:

an identification of the control strategy for each stationary diesel-fueled CI engine that when implemented will result in compliance with subsections (e)(2). If applicable, the information should include the Executive Order number issued by the Executive Officer for a Diesel Emission Control Strategy that has been approved by the Executive Officer through the Verification Procedure.

- 5. The District APCO may exempt the owner or operator from providing all or part of the information identified in subsection (e)(4)(A)3. or (e)(4)(A)4. if there is a current record of the information in the owner or operator's permit to operate, permit application, or District records.
- 6. Upon the written request by the Executive Officer, the District APCO shall provide to the Executive Officer a written report of all information identified in subsections (e)(4)(A)3. and (e)(4)(A)4.

(B) Reporting Requirements for Sellers of New Emergency Standby or Stationary Prime Diesel-Fueled CI Engines (> 50 bhp) Sold To Agricultural Operations.

1. Except as provided by subsection (c), by January 31, 2006 and January 31<sup>st</sup> of each year thereafter, any person who sells a stationary diesel-fueled CI engine having a rated brake horsepower greater than 50 for use in an agricultural operation shall provide the following information for the previous calendar year (January 1<sup>st</sup> through December 31<sup>st</sup>) to the Executive Officer of the Air Resources Board:
  - a. Contact Information
    - I. Seller's Company Name (if applicable);
    - II. Contact name, phone number, e-mail address;
  - b. Engine Sales Information (for each engine sold for use in California in the previous calendar year)
    - I. Make,
    - II. Model,
    - III. Model year (if known),
    - IV. Rated brake horsepower,
    - V. Number of engines sold,
    - VI. Certification executive order number (if applicable),
    - VII. Engine family number (if known),
    - VIII. Emission control strategy (if applicable).

(C) Reporting Requirements for Sellers of Stationary Diesel-Fueled CI Engines Having a Rated Brake Horsepower Less Than or Equal to 50 ( $\leq 50$  bhp)

1. Except as provided in subsection (c), by January 31, 2006 and January 31<sup>st</sup> of each year thereafter, all sellers of stationary diesel-fueled CI engines for use in California that have a rated brake horsepower less than or equal to 50 shall provide the following information for the previous calendar year (January 1<sup>st</sup> through December 31<sup>st</sup>) to the Executive Officer of the Air Resources Board:
  - a. Contact Information
    - I. Sellers Company Name (if applicable);
    - II. Contact name, phone number, e-mail address;
  - b. Engine Sales Information (for each engine sold for use in California in the previous calendar year)
    - I. Make,
    - II. Model,
    - III. Model year (if known),
    - IV. Rated brake horsepower,
    - V. Number of engines sold,
    - VI. Certification executive order number (if applicable),
    - VII. Engine family number (if known),
    - VIII. Emission control strategy (if applicable).

(D) Demonstration of Compliance with Emission Limits

1. Prior to the installation of a new stationary diesel-fueled CI engine at a facility, the owner or operator of the new stationary diesel-fueled CI engine(s) subject to the requirements of section (e)(2)(A)3. or (e)(2)(C)1. shall provide emission data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.
2. By no later than the earliest applicable compliance date specified in subsections (f) or (g), the owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of subsection (e)(2)(B)3. or (e)(2)(D)1. shall provide emissions and/or operational data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.

(E) Notification of Non-Compliance

Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified in subsections (e)(2) shall notify the district APCO immediately upon detection of the violation and shall be subject to district enforcement action.

(F) Notification of Loss of Exemption

1. Owners or operators of in-use stationary diesel-fueled CI engines, who are subject to an exemption specified in subsections (c) or (e)(2)(E)2. from all or part of the requirements of subsection (e)(2), shall notify the district APCO immediately after they become aware that the exemption no longer applies. No later than 180 days after notifying the APCO, the owner or operator shall demonstrate compliance with the requirements of subsection (e)(2). An owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of subsection (e)(2) shall provide emission data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.
2. The District APCO shall notify owners or operators of in-use stationary diesel-fueled CI engines, who are subject to the exemption specified in subsection (c)(9) from the requirements of subsections (e)(1) and (e)(2), when the exemption no longer applies. No later than 180 days after notification by the District APCO, the owner or operator shall demonstrate compliance with the requirements of subsections (e)(1) and (e)(2). An owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of subsection (e)(2) shall provide emissions data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.

(G) Monitoring Equipment

1. A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon engine installation, or by no later than January 1, 2005, on all engines subject to all or part of the requirements of subsection (e)(2), unless the District determines on a case-by-case basis that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history.
2. All DPFs installed pursuant to the requirements in subsection (e)(2) must, upon engine installation or by no later than January 1, 2005, be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
3. The District APCO may require the owner or operator to install and maintain additional monitoring equipment for the particular emission control strategy(ies) used to meet the requirements of subsection (e)(2).

(H) Reporting Provisions for Exempted Prime and Emergency Engines

An owner or operator of an engine subject to subsections (c)(6) or (c)(12) shall keep records of the number of hours the engines are operated on a monthly basis. Such records shall be retained for a minimum of 36 months from the date of entry. Record entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Record entries made from 25 to 36 months from the most recent entry shall be made available to District staff within 5 working days from the district's request.

(I) Reporting Requirements for Emergency Standby Engines

1. Starting January 1, 2005, each owner or operator of an emergency standby diesel-fueled CI engine shall keep a monthly log of usage that shall list and document the nature of use for each of the following:
  - a. emergency use hours of operation;
  - b. maintenance and testing hours of operation;
  - c. hours of operation for emission testing to show compliance with subsections (e)(2)(A)3. and (e)(2)(B)3.;
  - d. initial start-up hours;
  - e. if applicable, hours of operation to comply with the requirements of NFPA 25;
  - f. hours of operation for all uses other than those specified in subsections (e)(4)(I)1.a through (e)(4)(I)1.d. above; and
  - g. for in-use emergency standby diesel-fueled engines, the fuel used. The owner or operator shall document fuel use through the retention of fuel purchase records that account for all fuel used in the engine and all fuel

purchased for use in the engine, and, at a minimum, contain the following information for each individual fuel purchase transaction:

- I. identification of the fuel purchased as either CARB Diesel, or an alternative diesel fuel that meets the requirements of the Verification Procedure, or an alternative fuel, or CARB Diesel fuel used with additives that meet the requirements of the Verification Procedure, or any combination of the above;
  - II. amount of fuel purchased;
  - III. date when the fuel was purchased;
  - IV. signature of owner or operator or representative of owner or operator who received the fuel; and
  - V. signature of fuel provider indicating fuel was delivered.
2. Log entries shall be retained for a minimum of 36 months from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Log entries made from 25 to 36 months from most recent entry shall be made available to District staff within 5 working days from request.

(J) Reporting Requirements for the San Diego Gas and Electric Company Regarding the RBRP

1. The San Diego Gas and Electric Company shall provide to the San Diego County Air Pollution Control District the following information, by January 31, 2005, to the extent the District does not already have the information:
  - a. For each diesel-fueled engine enrolled in the RBRP:
    - I. Owner's Company Name (if applicable);
    - II. Contact name, phone number, e-mail address;
    - III. Load reduction capacity of engine, which is the rated brake horsepower expressed in megawatts (megawatts); and
    - IV. Diesel PM emission rate of the engine (g/bhp-hr);
  - b. The San Diego Gas and Electric Company shall update the information as necessary to reflect the current inventory of RBRP engines and provide the updated information to the SDAPCD upon request.
2. The San Diego Gas and Electric Company shall provide the San Diego County Air Pollution Control District with an environmental dispatch protocol for the RBRP that meets all of the following requirements:
  - a. The protocol shall require the San Diego Gas and Electric Company to dispatch engines in an order that protects public health, with consideration given to factors including, but not limited to, diesel PM emission rate, location, and other factors to be determined by the District; and

- b. The protocol shall require the San Diego Gas and Electric Company to identify and report to the District the specific engines called for dispatch within 1 day of the dispatch; and
  - c. The protocol shall require the San Diego Gas and Electric Company to report the following information to the District, within 30 days of the dispatch:
    - I. Identification of engine dispatched;
    - II. Load capacity of engine dispatched;
    - III. Cumulative total of load capacity of engines dispatched (megawatts); and
    - IV. Cumulative total of diesel PM emission rate of engines dispatched (g/hr).
  - d. Within 30 calendar days of receiving the environmental dispatch protocol, or a time period mutually agreed by the parties, the District APCO shall approve or disapprove the protocol.
- (K) Additional Reporting Requirements for the Stationary Emergency Standby Diesel-Fueled CI Engines Used To Fulfill the Requirements of an Interruptible Service Contract (ISC)
- 1. The owner or operator of an ISC engine shall provide to the District the following information, as necessary to the extent the District does not already have the information:
    - a. For each diesel-fueled engine enrolled in the ISC:
      - I. Owner's Company Name (if applicable);
      - II. Contact name, phone number, e-mail address; and
      - III. Diesel PM emission rate of the engine (g/bhp-hr).
    - b. For engines enrolled in an ISC prior to January 1, 2005, the information identified in (e)(4)(K)1.a. shall be provided to the District by January 31, 2005; and
    - c. For engines enrolled in an ISC after January 1, 2005, the information identified in (e)(4)(K)1.a. shall be provided to the District no later than 30 days after the engine is enrolled in an ISC.

The owner or operator shall update the information as necessary to reflect the current inventory of ISC engines and shall provide the updated information to the District upon request.

**(f) Compliance Schedule for Owners or Operators of Three or Fewer Engines (> 50 bhp) Located within the District**

- (1) All owners and operators of three or fewer engines located within the District, who will meet the requirements of subsections (e)(2)(B) solely by maintaining or reducing the current annual hours of operation for maintenance and testing, shall be in compliance by no later than January 1, 2006.

- (2) All owners and operators of three or fewer engines located within the District, which are not subject to subsection (f)(1) but are required to meet the requirements of subsections (e)(2)(B) or (e)(2)(D), shall meet these requirements in accordance with the following schedule:
- (A) All pre-1989 through 1989 model year engines, inclusive, shall be in compliance by no later than January 1, 2006;
- (B) All 1990 through 1995 model year engines, inclusive, shall be in compliance by no later than January 1, 2007; and
- (C) All 1996 and later model year engines shall be in compliance by no later than January 1, 2008.

**(g) Compliance Schedule for Owners or Operators of Four or More Engines (> 50bhp) Located within the District**

- (1) All owners and operators of four or more engines located within the District, who will meet the requirements of subsections (e)(2)(B) solely by maintaining or reducing the current annual hours of operation for maintenance and testing, shall be in compliance by no later than January 1, 2006.
- (2) All owners and operators of four or more engines located within the District, who are subject to the requirements of subsections (e)(2)(B) or (e)(2)(D) and who are not required to meet the compliance date specified in (g)(1), shall comply with (e)(2)(B) or (e)(2)(D), whichever applies, according to the following schedule:

<u>Pre-1989 Through 1989 Model Year Engines, Inclusive</u>	
<u>Percent of Engines</u>	<u>Compliance date</u>
50%	January 1, 2007
75%	January 1, 2008
100%	January 1, 2009
<u>1990 through 1995 Model Year Engines, Inclusive</u>	
<u>Percent of Engines</u>	<u>Compliance date</u>
30%	January 1, 2007
60%	January 1, 2008
100%	January 1, 2009
<u>1996 and Later Model Year Engines</u>	
<u>Percent of Engines</u>	<u>Compliance date</u>
50%	January 1, 2008
100%	January 1, 2009

## **(h) Emissions Data**

- (1) Upon approval by the District APCO, the following sources of data may be used in whole or part to meet the emission data requirements of subsections (e)(2)(A) through (e)(2)(D):
  - (A) off-road engine certification test data for the stationary diesel-fueled CI engine,
  - (B) engine manufacturer test data,
  - (C) emissions test data from a similar engine, or
  - (D) emissions test data used in meeting the requirements of the Verification Procedure for the emission control strategy implemented.
- (2) Emissions testing of a stationary diesel-fueled CI engine, for purposes of showing compliance with the requirements of subsections (e)(2)(A) through (e)(2)(D), shall be done in accordance with the methods specified in subsection (i).
- (3) For purposes of emissions testing, the particulate matter (PM) emissions from a dual-fueled stationary CI engine, which uses as its fuel a mixture of diesel fuel and other fuel(s), shall be deemed to be 100% diesel PM.
- (4) Emissions testing for the purposes of determining the percent change from baseline shall include baseline and emission control strategy testing subject to the following conditions:
  - (A) Baseline testing may be conducted with the emission control strategy in place, provided the test sample is taken upstream of the emission control strategy and the presence of the emission control strategy is shown to the District APCO's satisfaction as having no influence on the emission test results;
  - (B) Control strategy testing shall be performed on the stationary diesel-fueled CI engine with full implementation of the emission control strategy;
  - (C) The percent change from baseline shall be calculated as the baseline emissions minus control strategy emissions, with the difference being divided by the baseline emissions and the result expressed as a percentage; and
  - (D) The same test method shall be used for determining both baseline emissions and control strategy emissions.
- (5) Emission testing for the purposes of demonstrating compliance with an emission level shall be performed on the stationary diesel-fueled CI engine with the emission control strategy fully implemented.

## **(i) Test Methods**

- (1) The following test methods shall be used to determine diesel PM, HC, NO<sub>x</sub>, CO and NMHC emission rates:



(A) Diesel PM emission testing shall be done in accordance with one of the following methods:

1. California Air Resources Board Method 5 (ARB Method 5), “Determination of Particulate Matter Emissions from Stationary Sources,” as amended July 28, 1997, which is incorporated herein by reference.
  - a. For purposes of this subsection, diesel PM shall be measured only by the probe catch and filter catch and shall not include PM captured in the impinger catch or solvent extract.
  - b. The tests are to be carried out under steady state operation. Test cycles and loads shall be in accordance with ISO-8178 Part 4 or alternative test cycle approved by the District APCO.
  - c. The District APCO may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
2. International Organization for Standardization (ISO) 8178 Test procedures: ISO 8178-1:1996(E) (“ISO 8178 Part 1”); ISO 8178-2: 1996(E) (“ISO 8178 Part 2”); and ISO 8178-4: 1996(E) (“ISO 8178 Part 4”), which are incorporated herein by reference; or
3. Title 13, California Code of Regulations, section 2423, “Exhaust Emission Standards and Test Procedures – Off-Road Compression Ignition Engines,” which is incorporated herein by reference.

(B) NO<sub>x</sub>, CO and HC emission testing shall be done in accordance with one of the following methods:

1. California Air Resources Board Method 100 (ARB Method 100), “Procedures for Continuous Gaseous Emission Stack Sampling,” as amended July 28, 1997, which is incorporated herein by reference.
  - a. Tests using ARB Method 100 shall be carried out under steady state operation. Test cycles and loads shall be in accordance with ISO-8178 Part 4 or alternative test cycle approved by the District APCO.
  - b. The District APCO may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
2. International Organization for Standardization (ISO) 8178 Test procedures: ISO 8178-1:1996(E) (“ISO 8178 Part 1”); ISO 8178-2: 1996(E) (“ISO 8178 Part 2”); and ISO 8178-4: 1996(E) (“ISO 8178 Part 4”), which are incorporated herein by reference; or
3. Title 13, California Code of Regulations, section 2423, “Exhaust Emission Standards and Test Procedures – Off-Road Compression Ignition Engines,” which is incorporated herein by reference.

(C) NMHC emission testing shall be done in accordance with one of the following methods:

1. International Organization for Standardization (ISO) 8178 Test procedures: ISO 8178-1:1996(E) (“ISO 8178 Part 1”); ISO 8178-2: 1996(E) (“ISO 8178 Part 2”); and ISO 8178-4: 1996(E) (“ISO 8178 Part 4”), which are incorporated herein by reference; or
2. Title 13, California Code of Regulations, section 2423, “Exhaust Emission Standards and Test Procedures – Off-Road Compression Ignition Engines,” which is incorporated herein by reference.

(2) The District APCO may approve the use of alternatives to the test methods listed in subsection (i)(1), provided the alternatives are demonstrated to the APCO’s satisfaction as accurate in determining the emission rate of diesel PM, HC, NO<sub>x</sub>, NMHC, or CO.

**(j) Severability**

Each part of this section shall be deemed severable, and in the event that any part of this section is held to be invalid, the remainder of this section shall continue in full force and effect.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.